> This application is a continuation of Ser. No. 09/524,081, filed March 13, 2000, now U.S. Pat. No. 6,235,549, which is a division of Ser. No. 08/937,631, filed Sep. 26, 1997, now U.S. Pat. No. 6,057,586.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates generally to color sensors and specifically to a method and apparatus for employing a light shield to modulate a pixel's color responsivity.

2. Description of the Related Art

Imaging devices can typically employ a sensor (not shown) to detect light and, responsive thereto, generate electrical signals representing the light. A sensor typically includes a light sensing element (e.g., a photodiode), and associated circuitry for selectively reading out the electric signal provided by the light sensing circuit. The light sensing circuit operates by the well-known photoelectric effect that transforms light photons into electrons that constitute an electrical signal.

Color imaging devices employ color filter arrays (herein referred to as CFAs) to generate color output. CFAs include a plurality of CFA elements that typically include red, green and blue elements.

Figure 1 illustrates a perspective view of a conventional imaging device 2 that includes an IR blocking filter 4, a lens assembly 5, and an imager and package 6. The imager and package 6 includes a pixel array 7 having a substrate with an active area 8 and a color filter array 9 disposed thereon.

A CFA element 9 is overlaid on the substrate 8 and covers the light sensing circuit. The combination of the sensor with the corresponding CFA element is often referred to as a pixel. For example, if a red CFA element is